MSTP Mentor Guidelines

The MSTP Steering Committee reviews and approves nominated MSTP mentors. Eligible faculty may self-nominate or be nominated by Steering Committee members. Nominations must be submitted at least two months prior to a student's planned research rotation.

MSTP students may only conduct rotations or thesis work in labs of approved MSTP mentors. Approved mentors are listed on the MSTP website, with distinction between "initial" and "senior" mentors not publicly specified. Final approval for thesis lab placement resides with the MSTP Leadership.

Mentor Categories

- Initial Mentors may supervise up to 2 MSTP students concurrently, with approval from the Steering Committee required for the 2nd student
- 2. Senior Mentors may supervise up to 3 MSTP students concurrently, with approval from the Steering Committee required for the 3rd student

Exceeding these limits or accepting more than 1 new MSTP student annually requires Steering Committee approval.

- 1. <u>Mentor Requirements:</u> Hold a tenure-track position and be approved as a trainer in an MSTP-affiliated PhD program or subsidiary training program listed below. These are the only tracks in which MSTP students may enroll.
 - Biochemistry
 - Biomedical & Health Informatics
 - Biomedical Engineering
 - Cell Biology
 - Clinical Translational Research
 - Epidemiology and Biostatistics
 - Genetics and Genome Sciences
 - Molecular Biology and Microbiology
 - Molecular Virology
 - Neurosciences
 - Nutrition
 - Pathology: Cancer Biology
 - Pathology: Immunology
 - Pathology: Molecular and Cellular Basis of Disease
 - Pharmacology
 - Physiology and Biophysics
 - Systems Biology and Bioinformatics
- 2. Provide adequate funding to support student stipend and tuition.

- 3. If the mentor experiences a funding shortfall, the mentor's home department must agree to cover all cost of tuition and stipend until the student graduates, officially transfers to another lab for their PhD thesis, or leaves the PhD program.
- 4. Ensure sufficient lab space and resources for the student's research.
- 5. Demonstarate a track record of strong scientific productivity of an independent research program.
- 6. Identify a Senior Mentor to guide both the student and the Initial Mentor. A formal commitment letter from the Senior Mentor must be submitted to the Steering Committee.
- 7. Review and adhere to the MSTP Student Handbook and Mentor Guidelines.

Senior Mentor Requirements:

- 1. Fulfill all initial mentor requirements (except Senior Mentor supervision).
- 2. Have successfully mentored at least one MSTP student to PhD completion or multiple PhD students in the School of Medicine.
- 3. Demonstrate sustained extramural funding, high-impact publications, and leadership in their field.

Mentor Financial Responsibilities

Stipends: Mentors assume stipend costs starting between May 1 and July 1 of the student's 3rd year (first graduate year) until the student returns to medical training.

Tuition / Insurance: Mentors or their departments cover tuition and health insurance beginning in part in the Spring semester of the student's second MSTP year (2nd year of medical school) and fully during the graduate training.

Funding Shortfalls: As described above in Mentor Requirements, the Mentor's home department must financially support all student expenses if mentor funding lapses.

Mentors and students must contact the MSTP Director before applying for an NRSA award so as not to jeopardize the funding for the student's support for Med years 3 and 4.

Mentors and students must notify the MSTP office of the exact period of any support on any T32 training grant during the PhD phase (maximum allowed is 2 years). Failure to follow these rules will jeopardize the program's ability to financially support a student in M3 and M4.

NIH Training Grant Policies

- MSTP students may receive up to 5 years of T32/F30 support during their combined graduate and medical training. A one year extension requires prior approval from the NIH.
- NRSA F-series fellowships may fund up to 4 years PhD and medical phases, generally split evenly between the two phases.

Mentor Participation Expectations

All Mentors

- Host rotation students (as space permits).
- Participate in MSTP candidate interview and recruitment events.
- Serve on MSTP thesis committees.
- Engage in research symposia (i.e. MSTP Works in Progress).

Additional Expectations for Mentors with Active MSTP Students

- Attend MSTP events (i.e. annual retreat) as much as possible.
- Encourage and facilitate student participation in MSTP activities.

Student Progress and Publication Standards

Timeline:

Students must be allowed by their mentors to take off up to 6 weeks from lab to prepare to the USMLE Step 1, which must be completed by the end of April so that students begin full-time work in the lab no later than May 1.

Thesis Committee:

All mentors must submit updated CVs, biosketches, funding details, training record, and evidence of leadership in their field (can be integrated into their CV) every 2 years and during training grant renewal years.

Initial Mentor Requirements:

Each student must form a thesis committee in consultation with their PhD mentor during the first year they join the lab. The committee must contain at least one member of the MSTP Steering Committee and one faculty member with an MD. The committee must convene at least twice per year, and a copy of each thesis committee report must be sent by the committee chair to the MSTP office within 4 weeks of each meeting.

Thesis Projects: MSTP thesis projects should be research-based and hypothesis-driven, not a mere survey or descriptive analysis. Mentors are expected to guide students to tackle substantial, cutting-edge PhD projects with significant goals capable of meaningfully advancing the field of medical science.

Challenges in Student Progression: Mentors must take appropriate steps to address any deficiencies in progress early enough so that the situation can be efficiently remedied. If problems arise with a student, the mentor is encouraged to contact the GPD first, and notify the MSTP Leadership if problems persist.

Requirements for Return to M3: The mentor must commit to making every effort to help the student complete their PhD requirements in no more than 5 years. It is acceptable and encouraged for the student to complete their PhD in less than 5 years. Students who take more than 5 years to earn the PhD require approval from MSTP; beyond 6 years will require approval from MSTP, Graduate Studies, and the Committee on Medical Student Progress and Advancement. Moreover, there is a limit of 10 years for the completion of Step I, II, and III of the USMLE. Exceeding this limit may have significant consequences for licensure

Students must meet the publication requirements of their PhD program as well as the MSTP publication requirements. MSTP requires that at least one first-authored primary research paper must be accepted for publication before completing the PhD phase and returning to M3, however students are encouraged to have 2 or more first-authored primary research publications in peer-reviewed scientific journals by completion of the PhD phase. While the mentor is expected to place high priority on quality and impact of publications, publication requirements and timetables should never compromise the tackling of ambitious and significant research goals.

Evaluation of students will be individualized with consideration of unique aspects of the thesis project, and the Steering Committee will consider the time barriers of well-conceived ambitious projects in formulating expectations for progress so that students will not be penalized for pursuing important and ambitious scientific goals.

All PhD requirements must be met in order for students to return to M3. In rare circumstances, (i.e., a major paper under revision with projected acceptance), the student may return to M3 without the completion of all GP and MSTP PhD degree requirements, if the following requirements are met.

- 1. The PhD program agrees to postpone awarding of the PhD degree until the manuscript is accepted for publication, which is reasonably expected to take place within the student's M3 year.
- 2. The mentor provides a letter to the MSTP Director detailing the manuscripts in progress and the student's authorship position on each manuscript, along with verification that on at least one of those manuscripts the student's leadership role is such that they are guaranteed to remain as first author.
- 3. The student defends their thesis and meets all other graduation requirements before returning to M3.
- 4. The MSTP Steering Committee votes to approve this plan.

If the student's graduate program does not specify a publication requirement, the student must publish at least one significant first-authored research publication in a reputable peer-reviewed scientific journal.

Mentors and PhD programs that graduate MSTP students without meeting MSTP publication requirements will be reviewed for potential revocation of their affiliation with the MSTP.

Steering Committee Oversight

The Steering Committee monitors progress of all students at all stages and may intervene with the student and mentor to address concerns. Mentors must comply with Steering Committee decisions, including dismissal of a student from the MSTP.

Mentorship Termination

The Steering Committee reserves the right to revoke mentorship status for any actions that are deemed incongruent with MSTP values. These include, but are not limited to, the following:

- 1. Academic misconduct
- 2. Discrimination, harassment, or Title IX violations.
- 3. Substance use in the workplace or during medical school, graduate school, or MSTP events off campus.
- 4. Felony conviction.
- 5. Failure to meet program standards.

Affected mentors may appeal via University channels.